

Title (en)

DITHIOL COMPOUNDS, DERIVATIVES, AND USES THEREFOR

Title (de)

DITHIOLVERBINDUNGEN, DERIVATE DAVON UND VERWENDUNGEN DAVON

Title (fr)

COMPOSÉS DITHIOLS, DÉRIVÉS ET LEURS UTILISATIONS

Publication

EP 3542629 A2 20190925 (EN)

Application

EP 19152441 A 20100615

Previously filed application

16160418 20100615 EP

Priority

- US 18700509 P 20090615
- US 18701809 P 20090615
- US 18702309 P 20090615
- US 18698609 P 20090615
- US 18702809 P 20090615
- US 18703309 P 20090615
- US 18703909 P 20090615
- US 18694009 P 20090615
- US 22493009 P 20090713
- US 23505109 P 20090819
- US 23791209 P 20090828
- US 24223209 P 20090914
- EP 16160418 A 20100615
- EP 10790038 A 20100615
- US 2010038632 W 20100615

Abstract (en)

Dithiol compounds and derivatives thereof are disclosed. The agents are useful for treating ocular disease, especially presbyopia and cataract.

IPC 8 full level

A01N 43/26 (2006.01); **A61K 9/00** (2006.01); **A61K 31/095** (2006.01); **A61K 31/381** (2006.01); **A61K 31/382** (2006.01); **A61K 31/385** (2006.01);
A61K 31/4025 (2006.01); **A61K 31/4178** (2006.01); **A61K 31/497** (2006.01); **A61K 31/5377** (2006.01); **A61K 31/67** (2006.01);
A61K 31/70 (2006.01); **A61K 31/765** (2006.01); **A61K 45/06** (2006.01); **A61P 27/02** (2006.01); **A61P 27/12** (2006.01)

CPC (source: EP US)

A61K 9/0048 (2013.01 - EP US); **A61K 31/095** (2013.01 - EP US); **A61K 31/381** (2013.01 - EP US); **A61K 31/382** (2013.01 - EP US);
A61K 31/385 (2013.01 - EP US); **A61K 31/4025** (2013.01 - EP US); **A61K 31/4178** (2013.01 - EP US); **A61K 31/497** (2013.01 - EP US);
A61K 31/5377 (2013.01 - EP US); **A61K 31/67** (2013.01 - EP US); **A61K 31/70** (2013.01 - EP US); **A61K 31/765** (2013.01 - EP US);
A61K 45/06 (2013.01 - US); **A61N 5/067** (2021.08 - EP); **A61P 27/02** (2017.12 - EP US); **A61P 27/12** (2017.12 - EP US);
C07D 339/04 (2013.01 - EP US); **C07D 409/12** (2013.01 - EP US); **A61N 5/0613** (2013.01 - EP US); **A61N 5/067** (2021.08 - US)

Citation (applicant)

- US 39092809 A 20090223
- US 3387008 P 20080305
- US 6048708 P 20080611
- US 7718608 P 20080701
- US 26726008 A 20081107
- US 94665907 A 20071128
- US 86126206 P 20061128
- US 90773407 P 20070416
- US 92468607 P 20070529
- US 13527105 A 20050524
- US 57421104 P 20040526
- US 1043604 A 20041214
- US 96986804 A 20041022
- US 5087902 A 20020118
- US 6923955 B2 20050802 - TILL JONATHAN S [US], et al
- US 26242301 P 20010119
- US 93028701 A 20010816
- US 22565900 P 20000816
- BORJA, D ET AL.: "Optical Power of the Isolated Human Crystalline Lens", INVEST OPHTHALMOL VIS SCI, vol. 49, no. 6, 2008, pages 2541 - 8
- WEEBER, HA: "Stiffness gradient in the crystalline lens", GRAEFES ARCH CLIN EXP OPHTHALMOL, vol. 245, no. 9, 2007, pages 1357 - 66
- BONOMI, L ET AL.: "Evaluation of the 701 interzeag lens opacity meter", GRAEFE'S ARCH CLIN EXP OPHTHALMOL, vol. 228, no. 5, 1990, pages 447 - 9
- FLAMMER JBEBIE H: "Lens Opacity Meter: a new instrument to quantify lens opacity", OPHTHALMOLOGICA, vol. 195, no. 2, 1987, pages 69 - 72
- LI, X.LIU, Z. ET AL.: "Lipoamide protects retinal pigment epithelial cells from oxidative stress and mitochondrial dysfunction", FREE RADIC BIOL MED., vol. 44, no. 7, 2008, pages 1465 - 1474, XP022797595, DOI: 10.1016/j.freeradbiomed.2008.01.004
- BERGE ET AL.: "Pharmaceutical Salts", JOURNAL OF PHARMACEUTICAL SCIENCE, vol. 66, 1977, pages 1 - 19, XP002675560, DOI: 10.1002/jps.2600660104
- KIM ET AL.: "Aqueous penetration and biological activity of moxifloxacin 0.5% ophthalmic solution and gatifloxacin 0.3% solution in cataract surgery patients", OPHTHALMOLOGY, vol. 112, no. 11, 2005, pages 1992 - 96, XP005170767, DOI: 10.1016/j.ophtha.2005.06.017
- FINGI: "THE PHARMACOLOGICAL BASIS OF THERAPEUTICS", 1975, pages: I
- ZWINGMANN, C.: "13C Isotopomer Analysis of Glucose and Alanine Metabolism Reveals Cytosolic Pyruvate Compartmentation as Part of Energy Metabolism in Astrocytes", GLIA, vol. 34, 2001, pages 200 - 212

- COURVOISIER C. ET AL.: "Synthesis and effects of 3-methylthiopropanoyl thioesters of lipoic acid, methional metabolite mimics", BIOORGANIC CHEMISTRY, vol. 34, no. 1, 2006, pages 49 - 58, XP024896857, DOI: 10.1016/j.bioorg.2005.11.001

Cited by

WO2021181361A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

BA ME RS

DOCDB simple family (publication)

US 2010317608 A1 20101216; US 8795706 B2 20140805; DK 2442647 T3 20160530; EP 2442647 A2 20120425; EP 2442647 A4 20120919; EP 2442647 B1 20160316; EP 3069612 A2 20160921; EP 3069612 A3 20161019; EP 3542629 A2 20190925; EP 3542629 A3 20200101; EP 4082542 A1 20221102; PL 2442647 T3 20160930; US 10039743 B2 20180807; US 2014357691 A1 20141204; US 2015246903 A9 20150903; US 2016264545 A1 20160915; US 2017231951 A1 20170817; US 9284305 B2 20160315; US 9567314 B2 20170214; WO 2010147957 A2 20101223; WO 2010147957 A3 20110303

DOCDB simple family (application)

US 81558610 A 20100615; DK 10790038 T 20100615; EP 10790038 A 20100615; EP 16160418 A 20100615; EP 19152441 A 20100615; EP 21167955 A 20100615; PL 10790038 T 20100615; US 2010038632 W 20100615; US 201414303405 A 20140612; US 201615067935 A 20160311; US 201615385164 A 20161220